

ABSTRACT

The object of the present invention is to achieve interlayer-coordinated communication-line switching in a communication system or network comprising two layers, each having a switching function. In the interlayer-coordinated communication-line switching, the features of the two switching functions are utilized according to the line conditions so that the interlayer-coordinated communication-line switching can be made in a shorter time and is more efficient and reliable than the switching in accordance with the prior art. The object is achieved by a communication apparatus which (1) is connected with a network comprising (i) lower-layer apparatuses which are connected with communication lines of a lower layer and communication lines of an upper layer and have means for line switching in the lower layer and (ii) upper-layer apparatuses which are connected with the communication lines of the upper layer and have means for line switching in the upper layer and (2) detects line failure and coordinates line switching by the line-switching means of the lower- and upper-layer apparatuses by using failure information on the lower- and upper-layer communication lines.

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